This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

- 1. (Currently Amended): An alignment layer Alignment layer suitable for aligning liquid crystal (LC) molecules, said layer comprising a polymer film containing characterized in that it comprises at least one reactive mesogen additive (RM) in monomeric, oligomeric or polymeric form, wherein, after preparation of said alignment layer, said alignment layer contains unreacted polymerizable groups in said at least one reactive mesogen additive.
- 2. (Currently Amended): An alignment Alignment layer according to claim 1, wherein said alignment layer characterized in that it comprises less than 50 % by weight of RMs said at least one reactive mesogen additive.
- 3. (Currently Amended): An alignment Alignment layer according to claim 1, wherein said at least one reactive mesogen additive is characterized in that the RM(s) is (are) present in monomeric or oligomeric form in the alignment layer after the its preparation of said alignment layer.
- 4. (Currently Amended): <u>An alignment Alignment</u> layer according to claim 1, wherein said alignment layer characterized in that it is obtainable from a precursor material comprising at least one reactive mesogen (RM).
- 5. (Currently Amended): An alignment Alignment layer according to claim 1, wherein said layer characterized in that it is a solvent processed film.
- 6. (Currently Amended): An alignment Alignment layer according to claim 1, wherein said polymer film characterized in that it is a polyimide film.
- 7. (Currently Amended): An alignment Alignment layer according to claim 6, wherein said polymer film characterized in that it is a polyimide film having repeating units of the general formula A

$$\begin{array}{c}
O\\
N\\
\end{array}$$

$$A$$

- 8. (Currently Amended): <u>An alignment Alignment</u> layer according to claim 1, wherein said alignment layer characterized in that it is a solvent processed cellulose based film.
- 9. (Currently Amended): <u>An alignment Alignment</u> layer according to claim 1, wherein said polymer film characterized in that it is a triacetate cellulose (TAC) or diacetate cellulose (DAC) film.
- 10. (Currently Amended): An alignment Alignment layer according to claim 1, wherein said alignment layer characterized in that it is a command layer comprising one or more compounds selected from photochromic compounds, isomerizable isomerisable compounds, chromophores and dyes, wherein changes of the chemical structure and/or the orientational direction of said one or more these compounds induce a specific alignment of a liquid crystal an LC material coated onto said layer.
- 11. (Currently Amended): An alignment Alignment layer according to claim 10, wherein characterized in that said one or more compounds are selected from derivatives of azobenzene, stilbenes, spiropyran, spirooxadines, α-hydrazono-β-ketoesters, cinnamate, retinylidene, chalcone, coumarins, benzylidenephthalimidines, benzylideneacetophenones, diphenylacetylene, and or stilbazoles.
- 12. (Currently Amended): <u>An alignment Alignment</u> layer according to claim 1, wherein said at least one reactive mesogen additive is characterized in that the RMs are selected of one of the following formulae:

$$P^{1}(CH_{2})_{x}O \xrightarrow{(L^{1})_{r}} Z^{1} \xrightarrow{(L^{1})_{r}} Z^{2} \xrightarrow{(L^{1})_{r}} O(CH_{2})_{y}P^{2} I$$

$$P^{1}(CH_{2})_{x}g^{1} \xrightarrow{L^{2}} A \xrightarrow{L^{2}} Z^{3} \xrightarrow{L^{4}} L^{5} \xrightarrow{L^{6}} C \xrightarrow{L^{6}} C$$

$$P^{1}(CH_{2})_{x}g^{1} - A - Z^{\frac{5}{4}} - B - Z^{\frac{6}{4}} - C - g^{2}(CH_{2})_{y}P^{2} - III$$

$$P^{1}(CH_{2})_{x}g^{1} \xrightarrow{L^{2}} A \xrightarrow{L^{2}} E \xrightarrow{L^{3}} L^{4}$$

$$P^{1}(CH_{2})_{x}g^{1} \xrightarrow{A} Z^{3} \xrightarrow{B} -g^{2}(CH_{2})_{y}P^{2}$$

$$IV$$

$$P^{1}(CH_{2})_{a}g^{2}\overline{E}\overline{F}g^{3}(CH_{2})_{b}P^{2}$$

$$Y^{1}\overline{A}\overline{B}g^{1}(CH_{2})_{x}Z^{5}$$

$$Z^{6}(CH_{2})_{y}g^{4}\overline{C}\overline{D}Y^{2}$$

$$V$$

$$P^{1}(CH_{2})_{a}g^{2}\overline{E}\overline{F}-g^{3}(CH_{2})_{b}P^{2}$$
 
$$R^{1}\overline{A}\overline{B}-g^{1}(CH_{2})_{x}Z^{5}$$
 
$$Z^{6}(CH_{2})_{y}g^{4}\overline{C}\overline{D}-R^{2}$$
 
$$VI$$

wherein

P<sup>1</sup>, P<sup>2</sup> and P<sup>3</sup> are <u>each</u>, independently of each other, a <u>polymerizable</u> polymerisable group,

 $Z^1$  and  $Z^2$  are <u>each</u>, independently of each other, -O-, -S-, -CO-, -COO-, -OCO-, -O-COO-, -OCH<sub>2</sub>-, -CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>-, -C=C-, -CH=CH-COO-, -OCO-CH=CH- or a single bond,

 $Z^3$  and  $Z^4$  are <u>each</u>, independently of each other, -COO-, -OCO-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>O-, -OCH<sub>2</sub>-, -CH=CH-, -CF=CF-, -C=C- or a single bond,

Z<sup>5</sup> and Z<sup>6</sup> are <u>each</u>, independently of each other, -O-, -COO-, -COO-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>O-, MERCK-3144

-OCH<sub>2</sub>- or a single bond,

Y' and Y<sup>2</sup> are <u>each</u>, independently of each other, a polar group,

R<sup>1</sup> and R<sup>2</sup> are <u>each</u>, independently of each other, an unpolar alkyl or alkoxy group,

A, B, C and D are <u>each</u>, independently of each other, 1,4-phenylene that is optionally mono-, di\_ or trisubstituted by L<sup>1</sup>, L<sup>2</sup>, L<sup>3</sup>, L<sup>4</sup>, L<sup>5</sup>, L<sup>6</sup> or 1,4-cyclohexylene,

L<sup>1</sup>, L<sup>2</sup>, L<sup>3</sup>, L<sup>4</sup>, L<sup>5</sup> and L<sup>6</sup> are <u>each</u>, independently of each other, H, F, Cl, CN or an optionally halogenated alkyl, alkoxy, alkylcarbonyl, alkoxycarbonyl or alkoxycarbonyloxy group with 1 to 7 C atoms. [[.]]

r is 0, 1, 2, 3 or 4,

x and y are each, independently of each other, an integer from 1 to 12,

z is 1, 2 or 3, <u>and</u>

g<sup>1</sup>,g<sup>2</sup>,g<sup>3</sup> and g<sup>4</sup> are each, independently of each other, a single bond, -O-, -COO- or -OCO-,.

13. (Currently Amended): <u>An alignment Alignment</u> layer according to claim 12, wherein said at least one reactive mesogen additive is characterized in that the RMs are selected of one of the following formulae:

$$\begin{array}{c|c}
L^1 & L^2 \\
\hline
P^1(CH_2)_xO & \longrightarrow COO & \longrightarrow O(CH_2)_yP^2
\end{array}$$
Ia

$$P^{1}(CH_{2})_{x}O \longrightarrow COO \longrightarrow O(CH_{2})_{y}P^{2}$$

$$Va$$
 $Va$ 
 $Va$ 

and the polymer film alignment layer is a TAC or DAC film.

- 14. (Currently Amended): An alignment Alignment layer according to claim 1, wherein said alignment layer characterized in that is obtainable from a the precursor material that comprises 0.5 to 4 % by weight of said at least one reactive mesogen RMs.
- 15. (Currently Amended): A polymer Polymer precursor for preparing an alignment layer comprising a polymer film containing least one reactive mesogen additive in monomeric, oligomeric or polymeric form, wherein, after preparation of said alignment layer, said alignment layer contains unreacted polymerizable groups in said at least one reactive mesogen additive as defined in claim 4.

## 16. (Cancelled):

- 17. (Currently Amended): <u>A laminate Laminate</u> comprising an alignment layer according to claim 1 and a film comprising <u>a polymerized</u> <del>polymerised</del> or crosslinked <u>liquid</u> <u>crystal LC</u> material.
- 18. (Currently Amended): <u>A method Method</u> of preparing a laminate, <u>said method</u> <u>comprising</u>: <del>by</del>

providing a layer of a polymerizable liquid crystal polymerisable LC material onto an alignment layer according to claim 1, optionally aligning the liquid crystal LC material into

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uniform orientation, and <u>polymerizing</u> <del>polymerising</del> or crosslinking the <u>liquid crystal</u> <del>LC</del> material.

- 19. (Currently Amended): <u>In an optical, electrooptical, information storage</u>, <u>decorative and security device</u>, <u>the improvement wherein said device contains an Use of a precursor material</u>, alignment layer or laminate according to claim 1 in optical, electrooptical, information storage, decorative and security applications.
- 20. (Currently Amended): An optical Optical component or device comprising at least one precursor material, alignment layer or laminate according to claim 1.
- 21. (Currently Amended): A liquid Liquid crystal display comprising at least one alignment layer or laminate according to claim 1 or a component comprising the same.
- 22. (New): An alignment layer according to claim 1, wherein said alignment layer comprises less than 20 % by weight of said at least one reactive mesogen additive.
- 23. (New): An alignment layer according to claim 1, wherein said alignment layer comprises less than 10 % by weight of said at least one reactive mesogen additive.
- 24. (New): An alignment layer according to claim 1, wherein said alignment layer comprises less than 5 % by weight of said at least one reactive mesogen additive.
- 25. (New): An alignment layer according to claim 1, wherein said alignment layer has a birefringence of less than 0.05.
- 26. (New): An alignment layer according to claim 1, wherein said alignment layer has a birefringence of less than 0.005.
- 27. (New): An alignment layer according to claim 1, wherein said alignment layer is obtained from a polymer precursor or polymer precursor solution, to which said at least one reactive mesogen is added before processing or polymerizing.
- 28. (New): An alignment layer according to claim 1, wherein said alignment layer is obtained by adding said at least one reactive mesogen to the polymer.

- 29. (New): An alignment layer according to claim 12, wherein said alignment layer is obtainable from a precursor material that comprises 0.5 to 4 % by weight of said at least one reactive mesogen.
- 30. (New): An alignment layer according to claim 12, wherein said alignment layer is obtainable from a precursor material that comprises 1 to 2 % by weight of said at least one reactive mesogen.